DOCUMENT RESUME

ED 182 629 CG 014 118

AUTHOR Dembo, Richard: And Others
TITLE Examining a Causal Model of Early Drug Involvement Among Inner City Junior High School Youths.
PUB DATE Aug 79
NOTE 40p.: Paper presented at the Conference of the American Sociological Association (1979). Best copy available.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Behavior Patterns: *Disadvantaged Youth: *Drug Abuse: *Family Characteristics: Inner City: Junior High Schools: Junior High School Students: Models: Peer Relationship: *Self Concept: *Sex Differences: *Socialization: Student Attitudes

ABSTRACT

Reflecting the need to construct more inclusive, socially and culturally relevant conceptions of drug use than currently exist, the determinants of drug involvement among inner-city youths within the context of a causal model were investigated. The drug involvement of the Black and Puerto Rican junior high school girls and boys was hypothesized to result from their home composition, assumed relationships with parents, attitudes toward school, machismo values, and identification with drug involved peers. Results showed few socialization-into-drug-use differences to exist between the Puerto Rican and Black youths. However, the girls' drug use was somewhat better explained by the intrapersonal and interpersonal socialization variables in the model than that of boys. At the same time, the socialization variables examined had limited predictive power in regard to the drug involvement of the four groups. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED182629

BEST COPY AVAILABLE

EXAMINING A CAUSAL MODEL OF EARLY DRUG INVOLVEMENT AMONG INNER CITY JUNIOR HIGH SCHOOL YOUTHS*

By

Richard Dembo, Ph.D.**
Mental Health Systems Evaluation Project
of the Northwest Denver Mental Health
Center and the University of Denver
70 West Sixth Avenue, Room 319
Denver, Colorado 80204

Dana Farrow, Ph. D.
Assistant Professor of Management
Florida International University
Miami, Florida 33199

Don Des Jarlais, Ph. D.
Associate Research Scientist
New York State Office of Drug Abuse Services
Division of Cost Effectiveness and Evaluation
2 World Trade Center
New York, New York 10047

William Burgos, M.S.W.
Doctoral Student
Columbia University
School of Social Work
New York, New York 10029

James Schmeidler, Ph. D.
Associate Statistician
New York State Office of Drug Abuse Services
Division of Cost Effectiveness and Evaluation
2 World Trade Center
New York, New York 10047

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Richard Dembo

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Not for reproduction, quotation, or any other use without permission of the authors, except for press use after 27th August 1979 @10:30AM.

CG 014118

* We wish to record our indebtedness to Wade Clark Roof, whose path analysis article on traditional religion (1976) helped in the development of the present paper.

**The data discussed in the present paper were gathered while the senior author was employed by the N.Y.S. Office of Drug Abuse services.

ACKNOWLEDGEMENT

We are grateful for the assistance given us by the principal, teachers and parents of the junior high school who must remain anonymous. The reactions of many youngsters to earlier versions of the survey instruments were valuable to our research effort. The support and encouragement of the New York State Office of Drug Abuse Services, and especially Douglas S. Lipton, Director of the Division of Cost Effectiveness and Evaluation, are appreciated. Ken Marion, Dean Babst, Sharon Diamond, Carol Spielman and Phyllis Bergman were helpful in processing the data. However, these persons are not responsible for the views that are expressed in the paper or the ways in which the data were examined.

The comments of a number of reviewers of the paper were helpful in its refinement.

INTRODUCTION

Drug researchers have become more sophisticated in conceptualizing and measuring the psychological, social and cultural features of the lives of individuals and groups that relate to drug taking, as well as various patterns of drug use. However, much of the research that has been pursued is descriptive and exploratory in nature. This is especially the case for studies of adolescents in urban areas, where the risk of dysfunctional drug use is perceived to be greatest. In view of this situation, there is a need to understand better the factors relating to the drug taking of urban minority youths.

The present paper tests a model of drug involvement among inner city youths, which focuses on key features of their environment that previous theory and research suggest are important in understanding their drug involvement: home composition, felt relationships with parents, attitudes toward school, machismo values and identification with drug involved peers. The multivariate model relates to the need to construct more inclusive, socially and culturally relevant conceptions of drug use than exist currently in the field (Braucht, Brakarsch, Follingstad and Berry, 1973; Sadava, 1975).

A MODEL OF DRUG INVOLVEMENT AMONG INNER CITY YOUTHS

A major premise underlying our understanding of drug use among inner city youths is that their initial exposure to, and increased involvement with, substances reflects a socialization experience. A common assumption has been that personality defects or interpersonal problems are primarily responsible

for inner city youths' involvement in drug taking (see, for example: Chein, Gerard, Lee and Rosenfeld, 1964). However, an increasing amount of recent research indicates that drug use is a social career in which youths are motivated to learn appropriate roles and responsibilities, and rise in status as they demonstrate success in regard to the values of a given drug subculture (Coombs, Fry and Lewis, 1976).

Home Composition and Relationships with Parents

Studies of inner city drug users have stressed the importance of the composition of their homes and the manner in which parents and children get along with one another (Chein, Gerard, Lee and Rosenfeld, 1964; Weiner and Egan, 1973; Baer and Corrado, 1974; for reviews of the literature, see: Seldin, 1973; Braucht, Brakarsh, Follingstad and Berry, 1973). The thrust of the findings of this research indicates that the instability and disorganization of the inner city family, the lack of parental concern for their children and the absence of positive parent-child relationships can be significant predisposing factors to the initiation of illicit drug use.

Evidence suggests that the presence or absence of parents may be less crucial in illicit drug use among inner city youths, than the kinds of relationships parents have with their children. Youths who feel they have positive relationships with their parents (or a non-biologically related adult) may be less likely to become involved with illegal drugs than would be the case for youngsters experiencing severe difficulties in getting along with their parents (Chein, Gerard, Lee and Rosenfeld, 1964; Blum and Associates, 1972).

Attitudes to School

For many inner city youngsters, education is conceived to transmit values and skills that are too removed from their experience to be incorporated into their lives (Kohl, 1968). Further, negative attitudes toward school and poor school performance have been found to be frequent among delinquent youths (see, for example, Hirschi, 1971) and those who are involved with drugs (Feldman, 1974; Kandel, 1975; Brunswick, 1977). However, most of the research on the school performance-drug use association is correlational. Hence, it is difficult to determine whether drug use causes negative opinions in regard to school or whether the unengaging school environment that Louria (1971) suggests exists in some areas facilitates youthful drug taking. It is probable that both these processes operate in the inner city school setting, as it is here that the values of mainstream, middle class America confront the values and behavior of the street cultures which often exist in these locations (see: Murdock and Phelps, 1973, for some relevant results from an English study).

Machismo Values

Initial subcultural theories of delinquency (Cohen, 1955; Cloward and Ohlin, 1960) stressed that inner city youths adopted delinquent behavior as a response to the limited legitimate opportunities that were available for them to reach the dominant U. S. culturally valued goal of material success. Other, more compelling, work indicated that criminal (Wolfgang and Ferracuti, 1967) and delinquent behavior (Miller, 1958) could be viewed as one consequence of a commitment to the values of the subcultures of the inner city which esteem toughness, cunning and daring (see also: Clark, 1965; Rainwater, 1966).

Subcultural conceptions of drug use have been supported by the work of Finestone (1957), Blumer, Sutter, Ahmed and Smith (1967), and Feldman (1968, 1973, 1974). Their research indicated that ghetto youths who are involved in illicit drug taking are also involved in a life style that esteems "coolness," and in which the "high" obtained from drugs represents a valued experience. In these settings, the hierarchies of street and drug behavior serve mutually to allocate persons to positions of prestige.

Identification with Drug Using Peers

Another significant experience relating to youthful drug use concerns the identification with peers who use drugs. In some ghetto areas, drug using youths are esteemed (Blumer, Sutter, Ahmed and Smith, 1967; Sutter, 1966, 1969; Feldman, 1974), their involvement in illicit drug use and traffic representing an important position in the opportunity structure of the neighborhood. Peer usage has been found to be one of the most powerful predictors of personal substance taking among inner city youths (see: Chein, Gerard, Lee and Rosenfeld, 1964; Eisenthal and Udin, 1972).

The Process of Drug Involvement

As Figure 1, which sets out the model of drug involvement we shall test, shows we conceive three intervening phases to exist between home composition and personal involvement with drugs. In the first two stages following home composition are felt relationships with parents, attitudes towards school and the holding of machismo values. Such placement is consistent with the socialization literature emphasizing the critical importance of family structure on youths' orientations towards their parents,

education and their male sex role attitudes (Clausen, 1968; Keller, 1968; Hargreaves, 1972). Further, felt relationships with parents and machismo values are seen to affect attitudes toward school. These associations reflect the considerable literature indicating the impact of working class youths' experiences at home and male sex role orientations on their educational commitment and success (see, for example, Jackson and Marsden, 1962; Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld and York, 1966; Hargreaves, 1967; Kohl, 1968; Sexton, 1969). These factors, in turn, are perceived to affect identification with drug peers. It could be expected that one option of youths who feel isolated from their parents, dislike school and who value the display of toughness, the pursuit of excitement and daring among men would be to affiliate themselves with youths who are into the drug scene in their neighborhoods (see: Blumer, Sutter, Ahmed and Smith, 1967; Feldman, 1974). Lastly, identification with drug scene youths forms a natural, important link to a deepening involvement with drugs (Sutter, 1969). The perceived similarity with drug using peers reflects and reinforces an increasing commitment to a substance using life style (Young, 1971; Coombs, Fry and Lewis, 1976).

(Insert Figure 1 about here.)

The Factors of Sex and Ethnicity

Home composition, felt relationships with parents, attitudes toward school, the holding of machismo values and identification with drug involved youths comprise a potentially important set of features from which insight can be obtained into the drug use of urban youths. However, these characteristics need to be incorporated into an analysis that respects the sex and ethnicity differences that may exist in the patterns of substance use among inner city adolescents.

Much of the research that has been completed on the drug use of inner city youths has focused on males. This stress is, in part, a reflection of the concern over the relationship between heroin use and crime (see: Second Report of the National Commission on Marijuana and Drug Abuse, 1973). In view of this situation, there is an especial need to learn the demographic, social and cultural correlates of drug involvement among girls, and see how they compare to the factors that are associated with the drug use of boys in their neighborhoods.

Relatedly, attention should be given to the background, social and cultural characteristics relating to the drug use of various ethnic groups (see: Levine and Stephens, 1973; Lukoff and Brook, 1974; Cockerham, Forslund and Raboin, 1976; Iijama Nishi and Johnson, 1976; Brook, Lukoff and Whiteman, 1977; Kleinman and Lukoff, 1978). In particular, the work of Lukoff and Brook (1974) and Kleinman and Lukoff (1978) has found that, while similarities exist in the factors and processes relating to drug use among various ethnic groups in inner city areas, there are important ethnic group differences in the factors that are associated with drug use.

METHODOLOGY

The data reported in this paper were gathered from the first wave of a two part survey of junior high school youths attending an inner city school. The surveys were conducted in the winter of 1976. The questionnaires, which were a product of extensive exploratory and ethnographic work, were administered in the social studies classrooms of the students in one class period.

The research benefited from the support of school personnel and members of the community. We were invited to pursue the study so that the school and community could better understand the youths' values, beliefs and substance use experiences. This information could, it was felt, result in the development of more engaging and effective drug education and prevention programs.[1]

Description of the Sample

Boys (49%) and girls (51%) are equally represented in the study. Forty-two percent of the 1101 youths surveyed were in the seventh grade, 33% were eighth graders and 25% were in their last junior high school year. Most of the students (58%) indicated they lived with both their parents; however, residence in mother-headed households was high (36%). One percent of the youths claimed they lived with their father, and 3% said they resided with neither parent. A large proportion of the youths were Puerto Rican (44%) or Black (40%); 6% of the students were White; 4% came from non-Puerto Rican Hispanic backgrounds (e.g., Cuban, Colombian); and 3% of the pupils claimed an "Other", mainly Oriental, ethnic affiliation. Eighty-two percent of the students indicated they were born in New York City or elsewhere in the United States.

The educational level of the youth's household head was used to measure socioeconomic status. These data converged with our experience in reflecting the moderate to low SES range of the families that are represented by the youths in the survey. In terms of these data, 8% of the youths claimed they came from a household whose head had an eighth grade education or less, 12% completed some years of high school short of graduation, 18% finished high school, 6% had some college experience, 8% graduated college and 3% pursued graduate or professional study; household head educational level could not be determined for 45% of the youths.

Attitudes, Values and Identification with Drug Using Peers

The question sets that were used to probe felt relationships with parents, attitudes toward school, machismo values and identification with drug/gang youth types will be treated in a summary fashion. A detailed discussion of their content, as well as the factor analysis procedures that were used to develop these clusters, appears elsewhere (see: Dembo, Burgos, Des Jarlais, and Schmeidler,

1979; Dembo, Pilaro, Burgos, Des Jarlais and Schmeidler, forthcoming).[2] The following major dimensions, which are reviewed in Appendix A, were uncovered that permitted study of the hypothesized model:

1. Felt Quality of Relationships with Parents
2. Attitudes Toward School
3. Male Sex Role Values (Machismo)
4. Identification with Drug/Gang Youth Types

In order to use as much data as possible in the analyses, the created factor scores used a zero (the Z-score mean for each cluster) for a non-response. However, youngsters who did not answer any of the items in a given set were excluded from the factor score calculation for that scale.[3] The factor scores were derived in such a manner that the higher the score, the greater the adherence to the attitude, value or identification dimension reflected in the factor; the lower the score, the less the adherence to the attitude, value or identification dimension. Analysis found no significant ethnicity, demographic or drug use differences to exist between youths' not answering all the items in each question set and those responding to one or more of the questions.

Drug Use

One of the major concerns of the survey was to determine the patterns of the youths' drug use. To this end, questions were asked in regard to their use of seven categories of drugs: (1) alcohol, (2) marijuana (including hashish), (3) LSD or similar substances, (4) depressants, (5) narcotics, (6) solvents and (7) stimulants. (Although questions were asked in regard to tobacco use, these data are not reported here.) Analysis showed less than 6% of the youths to claim the use of any of the drugs listed in each of the categories from three through seven. However, 47% and 19% of the youths, respectively, indicated they had taken alcohol

and marijuana on one or more occasions during their lives; further, 37% noted they used alcohol, and 16% marijuana, during the six month period prior to administration of the survey.

In addition to learning the profile of the youths' drug use, we were interested in developing a measure of involvement with substances. A Guttman analysis of the data on claimed drug use during the six month period before the survey proved illuminating in this regard. Involving four categories, the data upon which the scale is based were found to be strongly unidimensional. A Guttman reproducibility coefficient of .949 and a scalability coefficient (Menzel, 1953) of .781 were found for the measure.

Only students who either admitted to some drug use or else explicitly denied all drug use were included in the drug use analysis; these criteria resulted in fourteen percent of the 1101 youths being excluded from the analysis. The remaining 951 students (86% of the total) are located in the four drug use scale categories in the following manner:

1. all use denied (N=485; 51%);
2. only alcohol use admitted (N=253; 27%);
3. marijuana--and usually alcohol--use admitted (N=134; 14%); and,
4. claimed use of other substances--and usually marijuana and alcohol (N=79; 8%).

Constructed according to the most "advanced" drug use category reached in the progression noted by Single, Kandel and Faust (1974), the drug use scale reflects a greater involvement with substances as we move from the all use denied, through the alcohol and marijuana use categories, to that relating to the taking of other drugs. A similar measure, developed from data obtained in the second wave survey of the school that was conducted about six weeks after the first survey was completed (Babst, Schmeidler, Dembo, Lipton and Burgos, 1977), found the youths' drug involvement to be

significantly and positively related to their experience of being drunk or very high on alcohol during the year prior to the survey and having an accident, missing school, getting into trouble with one's family or friends and getting the shakes or depressed due to the use of alcohol or other drugs during the six month period before the survey took place.[4]

Correlations Among the Variables in the Model

Tables 1 and 2, respectively, show the zero-order correlations among all the variables we shall examine for the Black and Puerto Rican boys and girls. For each sex and ethnicity group, the coefficients vary in their magnitude. However, in line with our earlier discussion, the directions of relationships among the variables for the four groups are as expected.

Home composition is negatively related to felt relationships with parents for Black males and Puerto Rican males and females. Furthermore, this factor is positively related to drug involvement among Black males and Puerto Rican females. For the four groups, felt close relationships with parents are positively associated with attitudes toward school and negatively correlated with identification with drug using youths and drug involvement. Attitudes to school relate negatively to the holding of machismo values, identifying with drug using youths and drug involvement. Espousing machismo values is associated positively to identifying with drug using youths. Further, the correlation matrices for the four groups indicate a positive association to exist between identification with drug using youths and personal drug involvement.

(Insert Tables 1 and 2 about here.)

Of greater importance for our purposes are the proposed causal relations among these six variables. In line with our theoretical discussion, felt relationships with parents, attitudes to school, the holding of the machismo values and identification with drug using youth types are seen as intervening between home composition, which is treated as exogenous in our analysis, and drug involvement in a three step fashion.

Causality, of course, implies that cause precedes effect. Ideally, we would have undertaken a longitudinal inquiry to measure the causal flow of the variables. It was not possible for us to do so. However, while we are measuring variables at only one point in time, it is possible to make reasonable assumptions about the temporal ordering of these variables. These assumptions, discussed above, form the basis for the path analysis.

RESULTS

The results of the path analysis for the Black and Puerto Rican boys and girls are shown in Figures 2 and 3; following Heise's (1969) concept of "theory trimming" all paths with less than an absolute value of .10 have been omitted. At least three criteria are needed to determine the subgroup(s) for which the path analyses provide a relatively "good" explanation of the dependent variable, and for which subgroup(s) there is a relatively "poor" explanation: (1) the congruence between the hypothesized model and the path coefficients, (2) the power of the model as reflected in the relevant R^2 value for each subgroup and (3) the ability to reconstruct the original correlation matrix from the reduced set of variable relationships (parsimony of fit) presented in Figures 2 and 3. We shall incorporate each of these criteria into our discussion of the results.

Hypothesized Model-Path Coefficient Convergence

The findings shown in Figures 2 and 3 generally conform to theoretical expectations, although there are variations in the kind and magnitude of association among the variables for the four comparison groups. For the Puerto Rican males and Black females, the hypothesized relationships among felt relationships with parents, attitudes toward school, machismo values, identification with drug using youth types and personal drug involvement are supported. Home composition is a deemphasized factor in the results for the Puerto Rican males and Black and Puerto Rican females. Further, machismo values relate negatively to personal drug involvement for the Black females.

The findings for the Black males and, especially, the Puerto Rican females conform to the drug involvement model in a more attenuated manner. For Black males, felt relationships with parents and machismo values relate to attitudes toward school; attitudes to school are associated with drug involvement; the holding of machismo values and attitudes to school relate to identification with gang involved, drug using youths; and identification with these youth types is associated with personal drug use. Further, the home composition factor is a more salient feature in regard to drug involvement for this group, than for Black females and Puerto Rican males and females. The home composition variable relates negatively to felt relationships with parents and to attitudes toward school.

In regard to the Puerto Rican females, felt relationships with parents and holding machismo values relates to attitudes to school; felt relationships to parents is associated to identification with gang involved, drug using youths; and felt relationships with parents and identification with gang involved, drug using youths relate to personal drug involvement.

We have used standardized coefficients in making comparisons in regard to the factors leading to drug involvement among the Black and Puerto Rican male and female groups. We appreciate the argument asserting that intergroup comparisons can only be made on the basis of unstandardized coefficients, unless it can be shown that the variances of the variables among the groups are equal in size. However, following the discussion of Hargens (1976), we believe that, for the social psychological process we are examining, standardized coefficients are to be preferred to assess the invariance of the drug involvement model across the four groups.

(Insert Figures 2 and 3 about here.)

Power of the Model

In order to obtain an estimate of the predictive power of the five antecedent variables in the model on the youths' drug involvement, the R^2 for these relationships was calculated for the four groups. The results are as follows: (1) Black males: $R^2=.177$, $F=7.021$, df 5, 163, $P<.001$; (2) Puerto Rican males: $R^2=.188$, $F=8.639$, df 5, 187, $P<.001$; (3) Black females: $R^2=.220$, $F=10.867$, df 5, 194, $P<.001$; (4) Puerto Rican females: $R^2=.200$, $F=10.955$, df 5, 220, $P<.001$. In each instance, the results are significant statistically.[5] However, it is clear that more information needs to be included in a model that would explain more adequately the drug involvement of the four groups.

Parsimony of Fit

The causal model investigated is one of a number of models that could be formulated to account for the correlations represented in the original matrices given in Tables 1 and 2. Accordingly, it is important to determine whether,

after deleting the paths indicated in the results in Figures 2 and 3, it is possible to reproduce, or closely approximate, the original correlations among the relevant variables for the Black and Puerto Rican male and female groups.

Heise (1969) offers an explanation of this procedure proposed by Simon (1957) and Blalock (1964) to aid in an evaluation of the adequacy of a given model. Briefly, when a model has been specified in which some possible paths between variables in fact do not exist, the path coefficients and inter-correlations between exogenous variables may be used to "reproduce" the actual correlation matrix of the variables in the model. These reproduced or regenerated correlations computed from the model are not constrained to equal their observed counterparts in the data. Comparisons of deviations of the regenerated correlations from the corresponding observed correlations provide a test of the "goodness of fit" of the model to the data. Although a good "fit" between the model and the data is no guarantee that the model is in fact correct, hypothesized causal models which do a poor job of reproducing the actual correlations may be rejected as viable theoretical possibilities. The ability to reproduce the original correlations for the four comparison groups would indicate that the pattern of correlations in the data is consistent with our reduced model results (see Kerlinger and Pedhazur, 1973, Chapter 11 for a relevant discussion).

The matrices containing the actual and regenerated correlations indicate that the reduced models for the boys and girls that are shown in Figures 2 and 3 are, in general, more consistent with the data for the females than the males. No actual-regenerated correlation difference of greater than .05 occurred for the Black females; and while four such differences were found for the Puerto Rican females, none of the discrepancies exceeded the .11 level.[6]

For the Black and Puerto Rican males, however, the results indicate that the "goodness of fit" of the model to the data is not quite so good. Four actual-regenerated correlation discrepancies of greater than .05 exist for the Black males, and two of these are at the .15 level. In regard to the Puerto Rican males, all three actual-regenerated correlation differences of greater than .05 that were uncovered are at the .10 to .13 levels.

Direct and Indirect Effects

As a final check on the drug involvement model, the regenerated correlations among the variables are decomposed into direct and indirect causal effects. Decomposition enables us to discern more clearly how each of the independent variables may be working along the various causal paths.

Tables 3 and 4 give the direct and indirect effects for the relevant independent variables that remain following the path analyses for the Black and Puerto Rican males and females (see Figures 2 and 3 for these results). The indirect effects represent that portion of the total association that intervenes between each of the independent variables and drug involvement.

(Insert Tables 3 and 4 about here.)

The results in Tables 3 and 4 show that there are respectable direct and indirect effects operating between the relevant independent variables and drug involvement for each of the four groups. However, several indirect influences are stressed. For example, for the males indirect effects of respectable magnitude, given the size of the direct associations obtaining between the independent variables and drug involvement, are indicated. For the Black and Puerto Rican males, these effects occur in the case of felt relationships with parents and machismo values.

In terms of the girls, respectable indirect effects hold between felt relationships with parents, machismo values and personal drug use for the Black females. For Puerto Rican girls, the indirect effects between home composition, felt relationships with parents and drug involvement are worthy of note.[7]

CONCLUSIONS

In general, the hypothesized drug involvement model examined in this paper was supported by the results with all but two of the hypothesized relationships occurring in at least one of the four subgroups. Importantly, the hypothesized direct causal relationship between home composition and drug involvement was not found in any of the four ethnic/sex subgroups, although home composition has a small indirect influence on drug involvement in three of the groups. Felt relationships with parents is quite important within our data. It is a direct cause of drug involvement in three of the four subgroups, and is an indirect cause (operating through attitudes to school and/or identification with drug using youths) in all four subgroups. The drug/gang youth type identification variable is directly causal of drug involvement in all four subgroups. In addition, this variable has the highest path coefficient of the direct causes of drug involvement in three of the four subgroups.

Few socialization into drug use differences appear to exist between the Black and Puerto Rican youths. Home composition is a deemphasized factor in the youths' drug involvement for all four groups. Felt relationships with parents is consistenly stressed, both directly and indirectly, in the drug involvement of the Black and Puerto Rican females and Puerto Rican males. However, this factor is deemphasized in the Black males' drug taking.

While the socialization into drug use model is consistent with the path analysis results for all four groups, the model is a somewhat better predictor of drug involvement for the girls than for the boys--as indicated in the R^2 values for the regression equations for the four groups (see Figures 2 and 3 for the results). These results suggest the girls' drug use is influenced more by the intrapersonal and interpersonal socialization variables in the model, than is the boys' substance taking (for a relevant discussion, see: Miller, Sensenig, Stocker and Campbell, 1973). This is especially the case for the factor of felt relationships with parents.

At the same time, the socialization into drug use variables examined are disappointing in that they have limited power in predicting the drug involvement of the four groups (R^2s from .177 to .220--see Figures 2 and 3). It would appear that we need to look elsewhere for experiences that can provide greater insight into the drug use of the youths we studied.[8]

In this vein, peer orientated attitudes and behavior that more closely reflect the environmental embeddedness of the youths' drug taking would provide a more fruitful set of socialization into drug use variables, than those represented in the model we tested. Results from some of our further work (Dembo, Farrow, Schmeidler and Burgos, 1979) encourages pursuit of this line of research; and highlight that the drug taking of the youths we researched is understood best as representing a quest for the consummation of a valued experience. At best, the socialization variables we examined in the present paper may serve as necessary causes of the youths' drug involvement, with the sufficient condition for their substance use deriving from their relationship to key features of the peer, street culture life style that forms such a critical part of the youngsters' environment.

We may need to direct more of our attention away from the substance user, who is seen as a carrier of a personal set of factors predisposing to drug use, and focus more of our concern on the socio-cultural inducements in the user's environment that make the drug experience rewarding. In this regard, the rich ethnographic work of Blumer, Sutter, Ahmed and Smith (1967), Sutter (1966, 1969) and Feldman (1968, 1973, 1974, 1977) challenges one's imagination to detail more systematically the process(es) by which patterns of drug use develop in the inner city. In an important sense, developments in the drug field in the next ten years rest on the ability of research to capture the complexity of the drug use experience in various socio-cultural settings in ways that reflect the issues and needs to which users must relate in coping with their environment; and to suggest ways in which these settings may be made more salutary.

NOTES

[1]The support we received from the school and community is suggested in the impressive rates of participation that were obtained in this voluntary survey. Over ninety-five percent of the students in attendance at the time of the survey took part. These youths represented 83% of the students enrolled in the school.

We believe this high response rate was facilitated by the efforts that were taken to ensure the confidentiality of the data. The youths were advised not to put their names, or any other means of identification, on the questionnaires; and, they were given seals to secure their answers from examination by anyone other than the researchers.

[2]Space considerations are responsible for not including tables of item loadings on each of the factors discussed in the present paper. Copies of these tables are available from the senior author upon request.

[3]The amount of missing data on the five antecedent variables in the model is small. Only 1.5% of the 1101 youths did not complete the question probing home composition; 87% of the youths completed all thirteen of the feit relationships with parents items, and 96% responded to half or more of them; 88% of the youngsters answered all eleven of the attitude toward school items, with 92% completing half or more; 80% of the students responded to all thirteen of the male sex role value items, and 94% answered half or more of these questions; and 90% of the youths completed all fourteen of the drug/gang youth type identification items, with 95% answering half or more of the questions.

[4]Seventeen percent of the students enrolled in the school are not represented in the survey. Other studies have shown that youths who do not attend school regularly tend to use various drugs more frequently than those who do (Roth, 1972; Lavenhar, Wolfson, Sheffet, Einstein and Louria, 1972; Kandel, 1975; Smart, 1975; Brunswick, 1977). However, we have no way of knowing whether this relationship obtains among students in the school where the research was carried out. No attempt was made to assess the composition of the 17% of the students who were enrolled in the school but were absent on the day of the survey. The nature of the researchers' relationship to the school and community precluded access to student records.

[5]Residual path coefficient data are available from the senior author.

[6]These results have been omitted due to space concerns. The data are available from the senior author upon request.

[7]We also examined for bias in the data. Analysis showed that 79%, 82%, 88% and 90% of the Black males, Puerto Rican males, Black females and Puerto Rican females in the survey are represented in the path data for each group, respectively. A further study of the data was performed to learn if there were any demographic or drug use biases reflected in the youths in the path analyses for the Black and Puerto Rican male and female groups. For each group, comparison was made of the youths, in terms of the composition of their households, age, SES (as measured by the educational level of the household head) and drug involvement, who were included in the path analysis and those who were excluded due to non-responses or unusable answers to one or more of the variables in the analysis. Analysis uncovered only one statistically significant difference; high SES Black females were less likely to be included in the path study, than their low SES counterparts.

[8]The characteristics of the drug involvement model, and the hypothesized associations among the variables, prevented investigation of a non-recursive or interactive relationship between identification with drug using youths and personal drug involvement (see Becker, 1963, for a discussion of this relationship). Specification of the system of equations for such an investigation resulted in the equations for drug involvement being underidentified. The equations for identification with drug using youth types, while just identified, had explanatory variables of such extreme multicollinearity as to preclude the obtaining of reliable path coefficients. Thus, investigation of a reciprocal relationship between identification with drug using youths and personal drug involvement was not a viable alternative given our data (see Heise, 1975).

APPENDIX A

DESCRIPTION OF THE ATTITUDE, VALUE AND IDENTIFICATION WITH DRUG USING PEERS FACTORS USED IN THE ANALYSIS

1. Felt Quality of Relationships with Parents

   This factor reflected the youths' sense of feeling close to their parents, that their parents cared about them, that there was mutual understanding in regard to the youngsters' friends and that the youths felt they were able to speak with their parents about important problems.

2. Attitudes Toward School

   This cluster, measuring the youths' feelings concerning the school experience, tapped a wide range of issues: perceptions of the value of school, feelings that teachers cared for, or were involved with, the students, and the manner in which the students were treated in their classrooms.

3. Male Sex Role Values (Machismo)

   Phrased in such a manner that they could be answered by both boys and girls, these questions probed the youths' male dominance values in a number of areas: who should run the household, the importance of being strong, demonstrating one's strength, being tough, fighting back if one isn't treated "right" and the value of being good at sports.

4. Identification with Drug/Gang Youth Types

   This cluster emphasizes the youths' identification with three youth types:

   (1) the hustler, who knows the ins and outs of the dope scene in the neighborhood, has "connections" and advises people on how to get high
   (2) the gang member
   (3) the "cool...flashy dresser" youth who is into getting high on smoke (reefers)

FIGURE 1

THE DRUG INVOLVEMENT MODEL

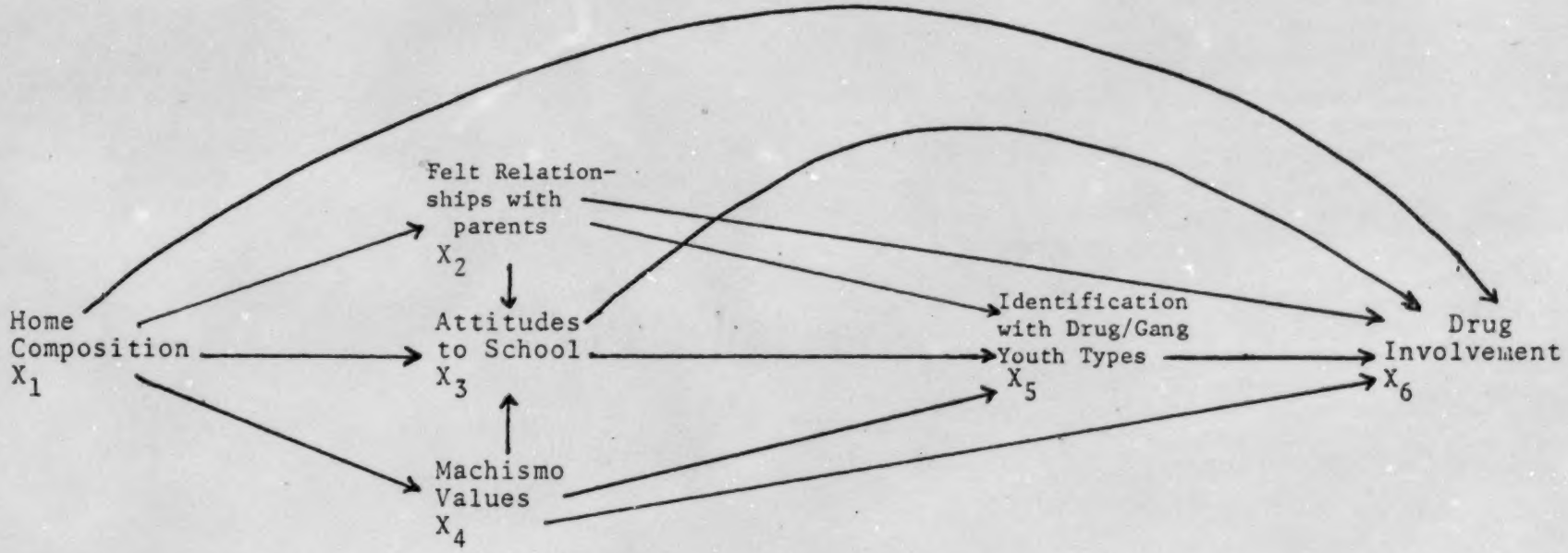


TABLE 1

CORRELATIONS(r), MEANS AND STANDARD DEVIATIONS OF VARIABLES IN THE MODEL FOR BLACK AND PUERTO RICAN BOYS+

Black Males (N=169)									Puerto Rican Males (N=193)		
Variable	Mean	S.D.	1	2	3	4	5	6	Variable	Mean	S.D.
X_1 Home Composition	1.50	0.51		-.19	-.07	.00	.08	.01	X_1 Home Composition	1.37	0.50
X_2 Felt Relationships with Parents	0.09	0.90	-.16		.40	-.11	-.32	-.34	X_2 Felt Relationships with Parents	0.10	0.89
X_3 Attitudes to School	-0.09	0.78	-.23	.45		-.31	-.34	-.29	X_3 Attitudes to School	0.01	0.88
X_4 Machismo Values	0.19	0.84	.06	-.02	-.25		.25	.18	X_4 Machismo Values	0.36	0.91
X_5 Drug/Gang Youth Type Identification	0.12	0.99	.20	-.11	-.19	.20		.32	X_5 Drug/Gang Youth Type Identification	0.10	0.96
X_6 Drug Involvement	1.95	1.00	.20	-.17	-.23	.02	.36		X_6 Drug Involvement	1.84	1.08
			1	2	3	4	5	6			

+The variables used in this analysis were coded as follows: home composition: living with both parents = 1, living with father or mother = 2, living with neither parent = 3; the felt relationships with parents, attitudes toward school, machismo values and identification with drug using youth type factor scores were constructed such that the higher the score the greater the adherence to the attitude, value or identification dimension reflected in the factor, the lower the score the less the adherence to the attitude, value or identification dimension; drug invovlement: all use denied = 1, alcohol use = 2, marijuana use = 3, use of drugs other than alcohol or marijuana = 4.

TABLE 2

CORRELATIONS(r), MEANS AND STANDARD DEVIATIONS OF VARIABLES IN THE MODEL FOR BLACK AND PUERTO RICAN GIRLS+

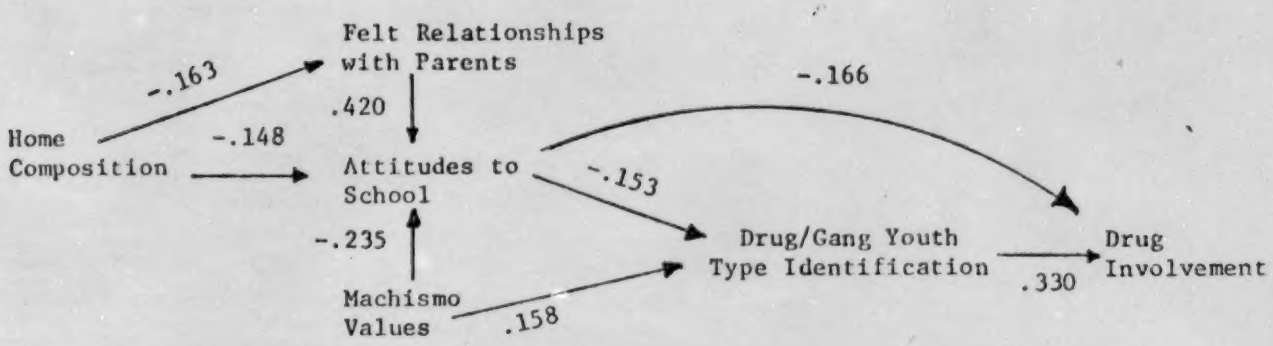
Black Females (N=200)										Puerto Rican Females (N=226)		
Variable	Mean	S.D.	1	2	3	4	5	6	Variable	Mean	S.D.
X_1 Home Composition	1.58	0.59		-.24	-.02	.02	.06	.12	X_1 Home Composition	1.44	0.56
X_2 Felt Relationships with Parents	-0.01	0.94	-.05		.22	.06	-.34	-.35	X_2 Felt Relationships with Parents	-0.13	0.96
X_3 Attitudes to School	0.06	0.90	.01	.30		-.16	-.16	-.18	X_3 Attitudes to School	-0.06	0.86
X_4 Machismo Values	-0.48	0.74	.02	.02	-.17		.08	-.04	X_4 Machismo Values	-0.10	0.76
X_5 Drug/Gang Youth Type Identification	-0.13	0.67	.08	-.21	-.12	.24		.36	X_5 Drug/Gang Youth Type Identification	-0.13	0.65
X_6 Drug Involvement	1.61	0.84	.09	-.30	-.29	-.01	.33		X_6 Drug Involvement	1.81	0.92
			1	2	3	4	5	6			

+The variables used in this analysis were coded as follows: home composition: living with both parents = 1, living with father or mother = 2, living with neither parent = 3; the felt relationships with parents, attitudes toward school, machismo values and identifcation with drug using youth type factor scores were constructed such that the higher the score the greater the adherence to the attitude, value or identification dimension reflected in the factor, the lower the score the less the adherence to the attitude, value or identification dimension; drug involvement: all use denied = 1, alcohol use = 2, marijuana use = 3, use of drugs other than alcohol or marijuana = 4.

FIGURE 2

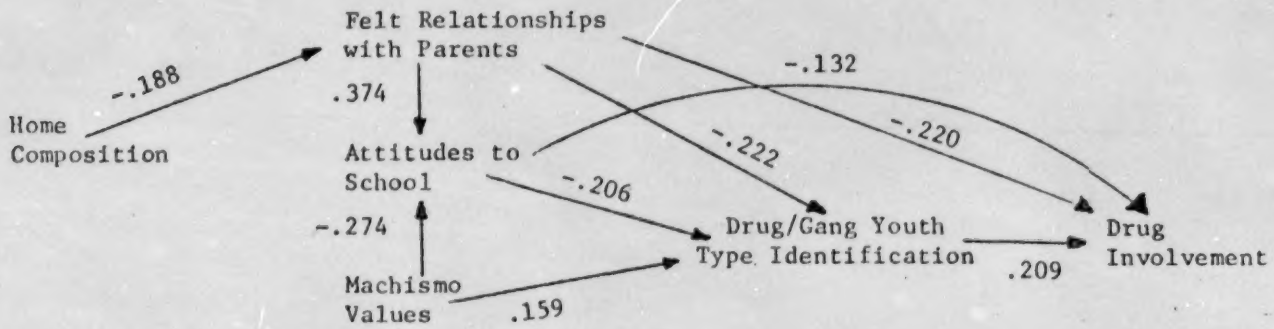
DRUG INVOLVEMENT AMONG BLACK AND PUERTO RICAN MALES (STANDARDIZED COEFFICIENTS)

a. Black Males (N=169)+



R^2 = .177

b. Puerto Rican Males (N=193)+



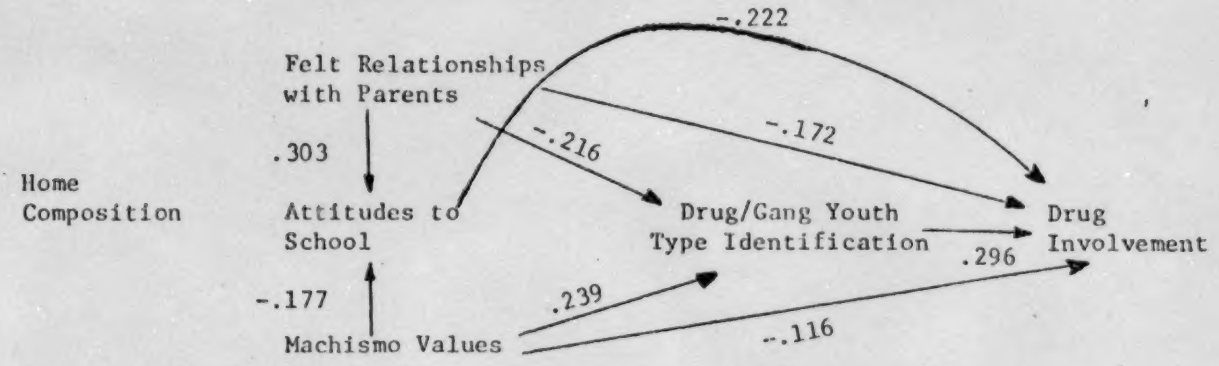
R^2 = .188

+the variables used in this analysis were coded as follows: home composition: living with both parents=1, living with father or mother=2, living with neither parent=3; the felt relationships with parents, attitudes toward school, machismo values and identification with drug/gang youth type factor scores were constructed such that we higher the score the greater the adherence to the attitude, value or identification dimension reflected in the factor, the lower the score the less the adherence to the attitude, value or identification dimension; drug involvement: all use denied=1, alcohol use=2, marijuana use=3, use of drugs other than alcohol or marijuana=4.

FIGURE 3.

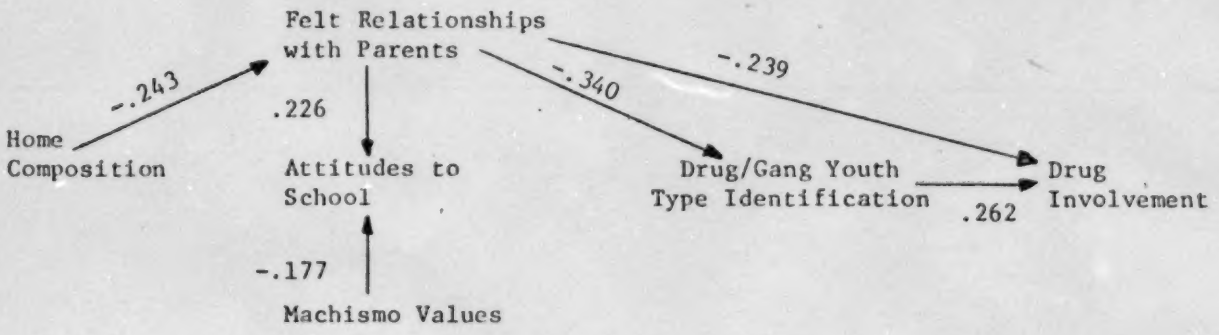
DRUG INVOLVEMENT AMONG BLACK AND PUERTO RICAN FEMALES (STANDARDIZED COEFFICIENTS)

a. Black Females (N=200)+



R^2 = .220

b. Puerto Rican Females (N=226)+



R^2 = .200

+ The variables used in this analysis were coded as follows: home composition: living with both parents=1, living with father or mother=2, living with neither parent=3; the felt relationships with parents, attitudes toward school, machismo values and identification with drug/gang youth type factor scores were constructed such that the higher the score the greater the adherence to the attitude, value or identification dimension reflected in the factor, the lower the score the less the adherence to the attitude, value or identification dimension; drug involvement: all use denied=1, alcohol use=2, marijuana use=3, use of drugs other than alcohol or marijuana=4.

TABLE 3

DECOMPOSITION OF REGENERATED CORRELATIONS BETWEEN HOME COMPOSITION, ATTITUDE, VALUE AND IDENTIFICATION VARIABLES AND DRUG INVOLVEMENT FOR THE BOYS

Variable	Type of Effect	Black Males' Drug Involvement (N=169)	Puerto Rican Males' Drug Involvement (N=193)
Home Composition	Total Causal	.039	.062
	Direct	0	0
	Indirect	.039	.062
	Non-causal	.016	0
Felt Relationships with Parents	Total Causal	-.091	-.332
	Direct	0	-.220
	Indirect	-.091	-.112
	Non-causal	-.012	0
Attitudes to School	Total Causal	-.216	-.175
	Direct	-.116	-.132
	Indirect	-.050	-.043
	Non-causal	-.013	-.083
Machismo Values	Total Causal	.103	.081
	Direct	0	0
	Indirect	.103	.081
	Non-causal	.003	0
Drug/Gang Youth Type Identification	Total Causal	.330	.209
	Direct	.330	.209
	Indirect	0	0
	Non-causal	.032	.093

TABLE 4

DECOMPOSITION OF REGENERATED CORRELATIONS BETWEEN HOME COMPOSITION, ATTITUDE, VALUE AND IDENTIFICATION VARIABLES AND DRUG INVOLVEMENT FOR THE GIRLS

Variable	Type of Effect	Black Females' Drug Involvement (N=200)	Puerto Rican Females' Drug Involvement (N=226)
Home Composition	Total Causal	0	.080
	Direct	0	0
	Indirect	0	.080
	Non-causal	0	0
Felt Relationships with Parents	Total Causal	-.303	-.328
	Direct	-.172	-.239
	Indirect	-.131	-.089
	Non-causal	0	0
Attitudes to School	Total Causal	-.222	0
	Direct	-.222	0
	Indirect	0	0
	Non-causal	-.063	-.074
Machismo Values	Total Causal	-.006	0
	Direct	-.116	0
	Indirect	.110	0
	Non-causal	-.006	.001
Drug/Gang Youth Type Identification	Total Causal	.296	.262
	Direct	.296	.262
	Indirect	0	0
	Non-causal	.032	.081

REFERENCES

Babst, D. V., J. Schmeidler, R. Dembo, D. S. Lipton, W. Burgos

1977 "Measuring consequences of drug and alcohol abuse among junior high school students." N. Y. S. Office of Drug Abuse Services, Division of Cost Effectiveness and Evaluation.

Baer, D. J. and J. J. Corrado

1974 "Heroin addict relationships with parents during childhood and early adolescent years." Journal of Genetic Psychology 124:99-103.

Becker, H. S.

1963 Outsiders: Studies in the Sociology of Deviance. New York: The Free Press.

Blalock, H. J., Jr.

1964 Causal Inferences in Nonexperimental Research. Chapel Hill: University of North Carolina Press.

Blum, R. H. and Associates

1972 Horatio Alger's Children: The Role of the Family in the Origin and Prevention of Drug Risk. San Francisco: Jossey-Bass.

Blumer, H., A. G. Sutter, S. Ahmed and R. Smith

1967 The World of Youthful Drug Use. Berkeley, California: University of California, School of Criminology.

Braucht, G. N., D. Brakarsh, D. Follingstad and K. L. Berry

1973 "Deviant drug use in adolescence: A review of psychosocial correlates." Psychological Bulletin 79:92-106.

Brook, J. S., I. F. Lukoff and M. Whiteman

1977 "Correlates of adolescent marijuana use as related to age, sex, and ethnicity." The Yale Journal of Biology and Medicine 50:383-90.

Brunswick, A. F.

1977 "Health and drug behavior: A study of urban Black adolescents." Addictive Diseases: An international Journal 3:197-214.

Chein, I., D. L. Gerald, R. S. Lee and E. Rosenfeld
1964 The Road to H: Narcotics, Delinquency, and Social Policy. New York: Basic Books.

Clark, K.
1965 Dark Ghetto. New York: Harper and Row.

Clausen, J. A. (ed.)
1968 Socialization and Society. Boston: Little, Brown and Company.

Cloward, R. A. and L. E. Ohlin
1960 Delinquency and Opportunity. New York: The Free Press.

Cockerham, W. C., M. A. Forslund and R. M. Raboin
1976 "Drug use among White and American Indian high school youth." The International Journal of the Addictions 11:209-20.

Cohen, A. K.
1955 Delinquent Boys. New York: The Free Press.

Coleman, J. S., E. Q. Campbell, C. J. Hobson, J. McPartland, A. M. Mood, F. D. Weinfeld and R. L. York
1966 Equality of Educational Opportunity. Washington, D. C.: U. S. Dept. of Health, Education, and Welfare, Office of Education, U. S. Govt. Printing Office.

Coombs, R. H., L. J. Fry and P. G. Lewis
1976 Socialization in Drug Abuse. Cambridge, Mass.: Schenkman.

Dembo, R., D. Farrow, J. Schmeidler and W. Burgos
1978 "Testing a causal model of environmental influences on the early drug involvement of inner city junior high school youths." Mental Health Systems Evaluation Project, 70 W. Sixth Ave., Room 319, Denver, Colorado 80204.

Dembo, R., W. Burgos, D. Des Jarlais and J. Schmeidler
1979 "Ethnicity and drug use among urban junior high school youths." The International Journal of the Addictions 14:557-568.

Dembo, R., L. Pilaro, W. Burgos, D. Des Jarlais and J. Schmeidler
Forthcoming "Self-concept and drug involvement among urban junior high school youths." The International Journal of the Addictions.

Eisenthal, S. and H. Udin

1972 "Psychological factors associated with drug and alcohol usage among neighborhood youth corps enrollees." Developmental Psychology 7:119-123.

Feldman, H. W.

1968 "Ideological supports to becoming and remaining a heroin addict." Journal of Health and Social Behavior 9:131-9.

1973 "American way of drugging." Society May/June:32-8.

1974 Street Status and the Drug Researcher: Issues in Participant-Observation. Washington, D. C.: Drug Abuse Council.

1977 "A neighborhood history of drug switching." In R. S. Weppner (ed.), Street Ethnography. Beverly Hills: Sage.

Finestone, H.

1957 "Cats, kicks and color." Social Problems 5:3-13.

Hargens, L. L.

1976 "A note on standardized coefficients as structural parameters." Sociological Methods & Research 5:247-255.

Hargreaves, D.

1967 Social Relations in a Secondary School. London: Routledge and Kegan Paul.

1972 Interpersonal Relations and Education. London: Routledge and Kegan Paul.

Heise, D. R.

1969 "Problems in path analysis and causal inference." In E. F. Borgatta (ed.), Sociological Methodology, 1969. San Francisco: Jossey-Bass.

1975 Causal Analysis. New York: John Wiley and Sons.

Hirschi, T.

1971 Causes of Delinquency. Berkeley: University of California Press.

Iijama, P., S. M. Nishi and B. D. Johnson

1976 Drug Use and Abuse Among U. S. Minorities. New York: Praeger.

Jackson, B. and D. Marsden

1962 Education and the Working Class. London: Routledge and Kegan Paul.

Kandel, D. B.
1975 "Reaching the hard-to-reach: Illicit drug use among high school absentees." Addictive Diseases 1:465-80.

Keller, S.
1968 The American Lower Class Family. Albany, N.Y.: N.Y.S. Division for Youth.

Kerlinger, F. N. and E. J. Pedhazur
1973 Multiple Regression in Behavioral Research. New York: Holt, Rinehart and Winston.

Kleinman, P. H. and I. F. Lukoff
1978 "Ethnic differences in factors related to drug use." Journal of Health and Social Behavior 19:190-99.

Kohl, H.
1968 36 Children. New York: Signet Books.

Lavenhar, M. A., E. A. Wolfson, A. Sheffet, S. Einstein and D. B. Louria
1972 "Survey of drug abuse in six New Jersey high schools: II. Characteristics of drug users and non-users." In S. Einstein and S. Allen (eds.)., Proceedings of the First International Conference on Student Drug Surveys. Farmingdale, New York: Baywood.

Levine, S. and R. C. Stephens
1973 "Types of narcotic addicts." In R. E. Hardy and J. G. Cull (eds.), Drug Dependence and Rehabilitation Approaches. Springfield, Ill.: Charles C. Thomas.

Louria, D. B.
1971 Overcoming Drugs: A Program for Action. New York: McGraw-Hill.

Miller, W. B.
1958 "Lower class culture as a generating milieu of gang delinquency." The Journal of Social Issues 14:5-19.

Murdock, G. and G. Phelps
1973 Mass Media and the Secondary School. London: Macmillan.

Rainwater, L.

1966 "Crucible of identity: The Negro lower-class family." In T. Parsons and K. B. Clark (eds.), The Negro American. Boston: Beacon Press.

Roof, W. C.

1976 "Traditional religion in contemporary society: A theory of local-cosmopolitan plausibility." American Sociological Review 41:195-208.

Roth, R.

1972 "Student drug abuse in southeastern Michigan and profiles of abusers." In S. Einstein and S. Allen (eds.), Proceedings of the First International Conference on Student Drug Surveys. Farmingdale, New York: Baywood.

Sadava, S. W.

1975 "Research approaches in illicit drug use: A critical review." Genetic Psychology Monographs 91:3-59.

Second Report of the National Commission on Marijuana and Drug Abuse

1973 Drug Use in America: Problem in Perspective. Washington, D. C.: U. S. Govt. Printing Office.

Seldin, N. E.

1972 "The family of the addict: A review of the literature." The International Journal of the Addictions 7:97-107.

Sexton, P.

1969 The Feminized Male: Classrooms, White Collars, and the Decline of Manliness. New York: Random House.

Simon, H. A.

1957 Models of M[illegible] New York: Wiley.

Single, E., D. B. Kandel and R. Faust

1974 "Patterns of multiple drug use in high school." Journal of Health and Social Behavior 15:344-57.

Smart, R.

1975 "Recent studies of the validity and reliability of self-reported drug use, 1970-1974." Canadian Journal of Criminology and Corrections 17:326-333.

Sutter, A. G.

1966 "The world of the righteous dope fiend." Issues in Criminology 2:177-222.

1969 "Worlds of drug use on the street scene." In C. R. Cressey and D. A. Ward (eds.), Delinquency, Crime and Social Process. New York: Harper and Row.

Wiener, J. M. and J. H. Egan

1973 "Heroin addiction in an adolescent population." Journal of the American Academy of Child Psychiatry 12:48-58.

Wolfgang, M. E. and F. Ferracuti

1967 The Subculture of Violence: Towards an Integrated Theory in Criminology. London: Tavistock.

Young, J.

1971 The Drugtakers: The Social Meaning of Drug Use. London: Paladin.